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REPORTS

TO THE

LOCAL GOVERNMENT BOARD

ON

PUBLIC HEALTH AND MEDICAL SUBJECTS.

(NEW SERIES No. 81.)

Dr. J. R. Hutchinson's Report to the Local
Government Board on the Sanitary Cir-
cumstances and Administration of the
Chadderton Urban District.



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Dr. J. R. Hutchinson's Report to the Local Government Board on the Sanitary Circumstances and Administration of the Chadderton Urban District.

ARTHUR NEWSHOLME,

Medical Officer,

31st July, 1913.

For some years the Board have been dissatisfied with the somewhat scanty information contained in the annual reports of the Medical Officer of Health of the Chadderton Urban District, as they were not able therefrom to form an adequate idea of the sanitary circumstances of the place. Accordingly a special inspection was ordered, and this duty was allotted to me.

Topography and General Statistical Considerations.

The Chadderton Urban District lies about 6 miles to the north-east of Manchester and is 3,082 acres in extent. In outline it is irregularly oblong, being about 3 miles long and from 1 to 2 miles broad.

Chadderton lies on the south-west slopes of the Yorkshire hills, and is situated at a height of from 300 ft. to 500 ft. + O.D. To the north lies the Royton Urban District, to the south the City and County Borough of Manchester, to the east the County Borough of Oldham; the Borough of Middleton forms the western boundary.

At the census of 1911 the enumerated population of the district was 28,299, the great majority of whom live in the eastern portion of the district, where the houses are continuous with those of Oldham. The urban district is bisected transversely by the Middleton Junction and Oldham branch of the Lancashire and Yorkshire Railway. It is crossed, too, by three main roads—Middleton Road from Middleton to Oldham, Chadderton Hall Road from Middleton to Royton, and Foxdenton Lane which runs from Middleton Junction in a south-easterly direction to Nimble Nook, where it enters the more populous district. Outside the eastern portion and the immediate neighbourhood of these roads the district is semi-rural in character.

In April, 1911, there were 6,355 inhabited houses in Chadderton; at the present time there are approximately 6,450. The rateable value is £121,253, and the assessable £115,270. A penny rate produces £505; the total rates for all purposes, including the poor rate, are 7s. 8d. in the £1.

Loans to the amount of £49,556 have been incurred mainly for works of sewerage and sewage disposal, whilst unexercised sanction

to the borrowing of £16,900 has been obtained. The subsoil is chiefly rock or shale overlying the clay and the coal measures, and owing to the nature of the ground considerable engineering difficulties were met with in the laying of sewers. Some subsidence from coal workings has taken place in Bower Lane. In Burnley Lane and Middleton Road is a quantity of land "made" from clinker and other inorganic material.

Industrial and Social Considerations.

Oldham, of which Chadderton is but an overflow, is a typical centre of the cotton industry. In Chadderton alone there are 53 cotton mills, and it is estimated that on the average from 200-300 hands are employed at each, so that about one-half the population—which is wholly artisan—is thus engaged. At the present time wages are good and work is plentiful. From the age of thirteen practically all the youth of both sexes are wage-earners; at this age a boy can earn 5s. and a girl 3s. a week. By the time they are sixteen they earn 10s., and at twenty from 20s. to 23s. Men may earn from 30s. to 40s. a week. It is by no means uncommon, therefore, for the joint earnings of a family to amount to £5 or £7 a week. In ordinary circumstances the common necessities of life can be well afforded by cotton operatives, and as a class they are well clothed, well fed, and well housed. Women are industrially employed to a considerable extent both before and after marriage. From information which I obtained from a number of cotton mills, it appears that of the married women who cease work on account of approaching parturition 40 per cent. cease at least three months before that event is due, whilst an equal number cease from 1½-2 months before. The remaining 20 per cent. continue at work as long as possible or until they are stopped by the management. At many mills a woman leaving work for the purposes of parturition automatically ceases to be employed, and she is not again "taken on." I was informed that probably about one quarter of the total number never return to the mill, 14 per cent. return at the end of 3 months, 25 per cent. at the end of 2 months, and the remainder at varying periods less than this. There is no crèche or similar institution in the town and a very large number of infants are artificially fed from a very early age, but as the Notification of Births Act has not been adopted, and no enquiry is made into infant deaths, precise information as to the extent of artificial feeding was not obtainable. The feeding of children of school age is specially important in a district like Chadderton where so many mothers return to work. The report of the school medical officer does not indicate any particular neglect in this respect, and I am informed by the county medical superintendent of schools that "on the whole the (school) children are well nourished. Many people living in the vicinity of mills make a business of cooking substantial hot mid-day meals, and these are taken to the homes or the mills by school-children. In cases where the mother remains at home she cooks the dinner, and it is carried to the mills by the children who often stay and

partake of it. Some children obtain a mid-day meal at eating-houses, others at the houses of relatives or neighbours. In one way or another therefore it would appear that there are reasonably adequate means by which growing children can obtain a substantial meal at midday. The nutrition of the children is indeed said to compare favourably with that of children more fortunately situated with regard to the industrial employment of mothers, for it must be borne in mind that a working mother means a very considerable increase in the family income. No dinners are provided in Chadderton by the local authority under the Education (Administrative Provisions) Act, 1907, but about 20 children were in receipt of free breakfasts at the time of my visit. Among the industrial features of Chadderton which can hardly be without influence on the physical condition and health of the inhabitants, is the "half-time" system, under which children of twelve and thirteen work on an average about 28 hours a week in the mill and 13 in school.

Vital Statistics.

A comparison of Chadderton with adjoining districts, where generally similar social and industrial conditions exist, for the 10 years 1901-1910, yields the following table:—

—	Birth-rate per 1,000.	Death-rate per 1,000 of Population.			Infant death-rate per 1,000 Births.
		All causes (uncorrected).	Pulmonary Tuberculosis.	Respiratory Diseases.	
Chadderton U.D. ...	27·9	17·7	1·39	3·37	148
Crompton U.D. ...	23·1	16	0·88	3·26	145
Failsworth U.D. ...	28·2	15·9	1·11	2·99	143
Royton U.D. ...	26·4	18	0·96	4·37	139
Middleton Borough...	23·3	16·5	1·34	3·38	145
Oldham County Borough.	26	18·8	1·45	4·09	148
England and Wales	27·2	15·4	1·16	2·65	128

While, in respect of the mortality figures given Chadderton compares not unfavourably with the adjacent districts, the table also shows that all the rates are distinctly high. A high death-rate may be due to sanitary circumstances or to topographical, social, or industrial conditions, or to all these combined, and the question arises to what extent sanitary defects contribute to the high mortality in Chadderton. Defective housing and overcrowding are powerful factors in contributing to a high death-rate, but it does not appear that the housing in the district is greatly at fault, whilst there is little overcrowding. Defective methods of removal of excrement and house refuse, and filth in and about dwellings, contribute to the spread of diarrhœal diseases which to a very large extent are responsible for the high rate of infantile mortality. There is a very large number

of unpaved yards in the town, and in many parts the population lives in close proximity to large and offensive ashpits, pail privies, and little less foul slop closets, all of which are a menace to health. Local industrial conditions, involving, as they do, alternate exposure to weather and to hot, humid atmospheres, predispose to catarrhal conditions of the respiratory tract, and cannot be ignored as contributing to the high respiratory death-rate.

SANITARY CIRCUMSTANCES.

Housing of the Working Classes.

As already stated, the number of inhabited houses at the census of 1911 is returned at 6,355: 92 were then unoccupied, and 66 were built during 1911. It may fairly be stated that at the present time there are 6,450 inhabited houses; some empty ones are uninhabitable. The average number of persons per house at the last census was 4·45, and of houses per acre 2·06; the number of persons per acre was 9·1. In the 20 years 1891-1911 the increase in population has been about 6,200. Corresponding to this increase there has been considerable activity in the building trade, and the recent introduction of a tramway through Chadderton from Oldham to Middleton has also led to the erection of a large number of new houses. Most of the modern artisans' houses are well planned, well ventilated, and are light and roomy; each has its own yard and water-closet; the latter—if adjoining the house—is of the cistern-flushed wash-down pedestal variety. The majority of the houses are four-roomed; in some, presumably built at a later period, there is in addition a scullery, whilst in the more recent still an extra bedroom is provided over the scullery. Long monotonous streets of houses of this character are met with. In a few instances "back-to-back" houses have been made "through," but there still exist about 44 houses of this type.

In Busk Square and Bower Hollow are a number of houses of apparently unsatisfactory character which have been scheduled by the inspector of nuisances, and at the time of my visit they were awaiting inspection by the medical officer of health. Apart from these the bulk of such houses as are undesirable appear to be so rendered by carelessness and dirty habits of the tenants; conspicuous amongst these are some houses in Throstle Walk. A sanitary defect, more serious by reason of its excessive prevalence, is caused by the very large number of unpaved common yards and passages. Many yards were quagmires of filth, and this has much to do with the dirty state of the houses themselves. Not only were the yards unpaved, but they were commonly littered with the overflowing contents of uncovered ashbins or common open ashpits. The medical officer of health has called attention to these conditions in his annual reports, but I cannot find that sufficient action has been taken to remedy them. Six houses were closed as unfit for human habitation in 1909, and ten in 1911; action in these cases were taken under Section 36 of the Chadderton Improvement Act of 1882. The procedure for obtaining closing orders under this Act is generally similar to that of the

Housing and Town Planning Act of 1909; under the local Act however, there is no power of appeal from the order of the local authority. In May, 1911, the inspector of nuisances was "designated" to act under the Housing (Inspection of District) Regulations of 1910, but only 19 houses were inspected in that year; of these 10 were closed. Up to now only the worst houses have been dealt with, but a systematic and careful inspection of the whole district requires to be made and the results recorded. No part of the district is unduly crowded with houses, nor does there appear to be any overcrowding of persons in houses. There are no common lodging-houses, and only three cellar dwellings, to which no great exception can be taken.

The Manchester City Council are engaged in promoting a town planning scheme for the northernmost portion of their area contiguous to the southern boundary of the urban district. By agreement with the district council a portion of Chadderton, 557 acres in extent, is to be included.

Water Supply.

With the exception of a few outlying farms and about 250 houses in the neighbourhood of Middleton Junction, which latter are supplied by the Heywood and Middleton Joint Water Board, Chadderton is supplied by the Oldham Corporation from their moorland gathering ground of 5,480 acres on the Pennine Range lying to the north-east of Oldham. A total population of 230,000 in Oldham, Chadderton, Crompton, Failsworth, Lees, Royton and Springhead is supplied from this source. In Chadderton the water is laid on inside the houses in practically every instance. The total quantity of water available for domestic purposes is 4,600,000 gallons per day, and for trade purposes 1,610,000 gallons, or 20 and 7 gallons per head respectively. The demand is greater than the supply—although the latter has recently been augmented by the addition of three-quarters of a million gallons per day derived from a disused coal-pit—and the Oldham Corporation are engaged in looking for further additional sources of supply. The question threatens to become urgent, and strict economy is exercised. In order to assist in this matter the Corporation have requested the Chadderton District Council to insist, wherever possible, on the conversion of pail closets to waste rather than to clean water closets—a policy which they themselves adopt.

Water from a certain portion of the gathering ground is conveyed, untreated, in special trade mains to mills and other works. The imprisoning of the storm water in the Chadderton sewers has affected the supply to the mills, although they are driven by condensing engines and comparatively little water is used. To compensate for the deprivation of what was regarded as their natural supply, a number of mill "lodges" have been connected up to the storm water overflows from the public sewers, and they thus receive any excess of storm water over six times the dry weather flow. In one instance the street gullies have been connected up to a "lodge," and in another the dirty water from the public baths

is, by agreement, run into a mill supply. The water obtained from the trade main has to be paid for, whereas the storm water obtained locally has not. It occasionally happens that a "lodge" becomes fouled by excreta, but the precaution of running the storm water through a settling tank is usually taken. Reference has previously been made to a number of houses supplied by the Heywood and Middleton Joint Water Board; a population of about 1,000 in the vicinity of Middleton Junction is thus supplied with water obtained from the high land of Naden, Ashworth, and Cheesdon, in the neighbourhood of Rochdale. Both the Oldham and Rochdale waters are of excellent quality, but the former is somewhat plumbo-solvent, and requires to be treated with chalk. The degree of plumbo-solvency is frequently tested, and the amount of chalk varied accordingly.

Sewerage and Sewage Disposal.

Since 1894 the whole of the district, excepting 600 acres in the most sparsely populated portion, has been sewered, and, with few exceptions, the house drains have been connected up. The Chadderton Improvement Act of 1882 authorised the sanitary authority to borrow without the Board's sanction not more than £30,000 for "sewers, sewage, and night soil works." The local authority does not appear to have had the benefit of expert advice when this sum was fixed, as repeated applications have been made to the Board for the sanction of additional loans, and the total amount which has been expended on the system up to date is £146,972, or something over £5 per head of the population. A further application for sanction to borrow £5,500 for the relaying of a sewer which has sunk in consequence of coal workings is now before the Board. This very large cost appears to be due in part to the inadequacy of the original disposal plant and the unsuitability of the land for treatment by irrigation, and in part also to the unsatisfactory nature of the ground in which some sewers had to be laid. The sewage is treated at the Slacks Valley works to the south-west of the district. The works appeared to be well managed and well kept; the effluent was very clear and was odourless.

The sewerage is divided into two zones—the high and the low level; the former conveys mainly domestic sewage, which is treated with 8 grains of alumino-ferric and 4 grains of lime to the gallon. The low level contains a large quantity of brewery and other trade refuse; this is treated with 20 grains of lime to the gallon. After this preliminary treatment the sewage is passed on to circular and rectangular percolating filters; the effluent is passed through a "humus" tank and then into the Wince Brook, a tributary of the River Irwell. In 1908 it was found necessary to extend the sewage works by the construction of a number of bacteria beds, sedimentation tanks, and storm water filters. This was in consequence of the unsatisfactory nature of the effluent, and legal action by the Mersey and Irwell Joint Board, which resulted in an order of the Court being made in November, 1904, under the terms of which the district council

were required to cease polluting the Wince Brook within six months. Since the addition to the works, I understand that the effluent is systematically good.

Excrement Removal and Disposal.

There are in the district 6,398 closets, or approximately one per house. Of this number, at the date of my enquiry, 2,663 were pail privies, 2,428 slop water-closets, 1,301 cistern-flushed clean water closets, 5 Bristol closets (in which the shafts are of brick-work and flushing is by hand); and one a midden privy. In the two years 1910 and 1911 there were 1,700 conversions of pail closets to closets on the water-carriage system; of these, 600 were to cistern-flushed clean water closets and 1,100 to waste water closets. The great preponderance of the latter variety is due to the representation of the Oldham Corporation that by their use a saving in water would be effected. It is not now customary to convert to, or to erect, a clean water closet if the circumstances permit of the installation of one on the waste water system, unless the closet is directly attached to a house. There are several types of waste water closet in use, but the one most commonly adopted is Duckett's "B" type, in which a 3-gallon tipper is situated at the base of the shaft under the closet floor where it is readily accessible by raising a cast-iron plate. Many complaints of the closet "not acting" or "being blocked" were made to me, and in not a few instances I found that blockages commonly recurred or were allowed to remain several days before the inspector of nuisances was notified. The depth of the closet shaft varies from 4 to 6 feet, according to the fall of the drain; in many instances the shaft was not set at the right inclination. I do not recall a single instance where the rear wall was free from excreta. Many causes operate to render the slop water flushing ineffectual; it is impossible to see the bottom of the shaft without artificial light, and this seems to invite the throwing down of articles likely to obstruct the outlet and interfere with the proper working of the tipper; rags, wire, brushes, and rolls of paper are amongst the numerous articles found in the traps of closets which the council's servants have been called upon to "unblock."

In not a few cases the fact of the tipper not working is attributed to its being insufficiently supplied with slop water, and it is to be feared that this difficulty is not uncommonly overcome by leaving the house tap running. One hundred and forty-seven defective waste water closets were attended to on behalf of the council during the six months ending November 30, 1912; this gives an average of 24·5 a month, or one a working day. I was informed by the medical officer of health of Oldham that in 1910—the last year for which the figures were available—15 per cent. of the waste water closets in that town required the attention of the Corporation's servants, against 0·4 per cent. of the cistern-flushed closets. Moreover, it was evident that in Chadderton by no means all the defective waste water closets were brought to the notice of the inspector of nuisances; many were dealt with by the tenants themselves. On the question whether

there is any saving of water by the use of waste water closets there seems to be some diversity of opinion. It is evident that any saving of water which there may be is much less than was at first supposed, while it is sometimes stated that more water is used in waste water closets. Chadderton, with its large number of waste water closets, has a greater consumption per head for domestic purposes than some almost wholly fresh water closet towns, *e.g.*, Leicester and Cardiff. No such diversity of opinion exists as to the relative merits of the two types of closets, and the erection of waste water closets is now actively discouraged in Birmingham, Blackburn, Liverpool, Manchester, Salford, and other towns. Indeed, in some of these places waste water closets are being converted to clean water closets. After my inspection I am forced to the conclusion that the time has arrived when the district council should reconsider their position in this matter. Comparatively little advance in the type and construction of waste water closets has been made in recent years, and it seems clear that a system which permits of such frequent defects and nuisance must be abandoned sooner or later. With the recommendation of the medical officer of health in his annual report for 1907, which does not appear to have been modified in subsequent reports, that all pail closets should be converted into waste water closets, I am unable to agree.

In regard to the five Bristol closets above referred to, the shafts of the only two which I was able to see were exceedingly foul; one of them was blocked, and the drain was open. It is not known where the contents of these closets discharge, but it is surmised that they enter an old underground water course which probably serves a mill lodge.

At houses with pail closets, the work of emptying the pails is performed during the night by six men with two tank carts and two horses. The horses and their drivers are supplied by local farmers, who have the option of taking all the excreta collected by their men. The capacity of the carts is 60-70 pails, and three or four journeys a night are made; every pail is emptied, therefore, at least once a week. The contents are deposited on one or more of five farms, usually in a trench dug for the purpose. The excrement is tipped into the trench and is then mixed with earth, ashes, "shoddy dirt," farmyard manure, &c., by a man employed by the district council. It is his duty to go from tip to tip and mix the excreta with whatever is provided for the purpose by the farmer upon whose land it has been put. I visited some of the tips, and found them situated well away from houses and in such positions as are calculated to avoid nuisance. The pails are emptied *in situ*, dusted with carbolic acid powder, and then replaced under the seats. For enteric fever dejecta special covered pails are provided and their contents are burned.

Refuse Removal and Disposal.

At the more recently built houses movable galvanized iron ashbins are insisted upon for the storing of house refuse, and this nominally holds where closet conversions have been carried out. In these cases, however, the disused privy pails are made to serve

as ashbins, but they are without covers and in this respect contravene the bye-laws. A large number of common open ashpits still exist in the district, and the manager of the sewage works—who also supervises the refuse destruction—complained that their contents were so wet that they would not burn. Seven couples of men, each with a horse and cart, are engaged in emptying the bins and pits and carting the contents to the destructor at Slacks Valley. It is estimated that the bins are emptied weekly and the pits once a month; at the time of my visit not a few pits were overflowing.

The association of unpaved passages and yards with common open ashpits or uncovered small ashbins makes the precincts of houses very dirty even in fine weather; in wet weather such as prevailed at the time of inspection, their condition is superlatively bad.

Slaughter-houses.

There are ten licensed slaughter-houses on the register. Generally they are situated in small yards in the rear of the butchers' shops, and are in consequence very near the dwelling-houses. Many appear to be not uncommonly used as stores for provender, harness, and other articles appertaining to the trade of a butcher. The interiors, as a rule, are clean and a plentiful supply of hot water is available, but the surroundings of some of them leave much to be desired. There is no systematic meat and slaughter-house inspection, and offal appears to be left on the premises for a longer period than is necessary. The situation of the slaughter-houses in densely-populated neighbourhoods increases the importance of close supervision being exercised over them, and strict cleanliness and compliance with the bye-laws should be insisted upon.

Dairies, Cowsheds, and Milkshops.

Regulations under the Dairies and Cowsheds Order appear to have been made by the then sanitary authority in 1887, but there is nothing to show that they were ever put into practice, and a new series is now before the Board. Since the district was visited by my colleague, Dr. E. P. Manby, in June, 1911, all the cowsheds have been visited for the purpose of registration. Of 117 sheds, 65 per cent. were found to be technically overcrowded. For the most part those which I visited were dark, hot, dirty, and in close proximity to large collections of manure; many were badly paved and drained. It should be said, however, that in striking contrast to these were two farms where the cows were clean and were well housed in airy, well lighted, clean sheds.

At one farm it is the custom, after the cowshed has been cleaned out, to put down in the manure channel dung and soiled litter which has been removed from the stable, in order that it may be "trodden down." The shed was indescribably dirty and the quarters of the cows were caked with dung. Shoddy dirt, the swept-up refuse of cotton waste works, is almost universally used as bedding for cattle. This in itself is very dirty, and although

it has the capacity of readily soaking up urine, it does not appear to be a suitable material for cattle to lie on, and one farmer expressed the opinion that it was impossible to keep a shed clean where this material was used, as "you put down more dirt than you took up." The use of this material, no doubt, contributes to the general uncleanly condition of the window sills, beams, and other prominences on which dirt can lodge.

Bakehouses.

The bulk of the bread and confectionery sold is brought into the district from Oldham, and there is only one bakehouse of any size in Chadderton. It is situated behind the Middleton Road, and is approached through very dirty unpaved passages. On the occasion of my inspection the passage between the rear of the baker's shop and the bakehouse was a quagmire. A good deal of this dirt is carried into the bakehouse, which I found to be dirty and kept in a slovenly manner. Confectionery was put out to cool on the walls of the house yard. An outhouse in which some dozens of cakes were cooling is also used as a store-room for a motor-bicycle, gardening tools, &c.; its walls were dirty, and the skylight was overgrown with cobwebs.

Sanitary Administration.

The Chadderton Urban District Council consists of a chairman and seventeen members, fourteen of whom constitute the health committee, which meets monthly. The meetings are attended by the medical officer of health and by the inspector of nuisances, both of whom present written reports.

Bye-laws with respect to the following matters have been sanctioned at the dates given, and are in force in the district:—

The Coalshaw Green Recreation Ground, 1912.

New Streets and Buildings, 1911.

Water Closets, Waste Water Closets, and the Drainage of Buildings, 1908.

Nuisances and the Keeping of Animals, 1873.

Slaughter-houses, 1873.

It is to be regretted that the old bye-laws of 1873 were not revised last year at the time that other new bye-laws and regulations were being considered.

One of the most urgent sanitary needs of the district is the paving of common yards, and bye-law powers to enable them to do this under Section 23 of the Public Health Acts Amendment Act of 1890 might well have been applied for by the council.

The Chadderton Improvement Act of 1882, modified by the Provisional Order confirmed in 1902, has already been referred to. Besides the power conferred on the council to close houses unfit for human habitation the local act contains other important sanitary provisions in relation to the conversion of pail closets and the measures to be taken in dealing with milk-borne infectious disease.

The adoptive acts in force are the Public Health Acts Amendment Act of 1890, which was adopted in its entirety, and the Private Street Works Act of 1892. Under this latter measure a considerable amount of work is now in hand, as the council are anxious to expedite the conversion of pail closets.

The administration of the Midwives Act in the district is in the hands of the Lancashire County Council.

The Medical Officer of Health, Mr. Harold Ashton, L.R.C.P. & S. (Edin.), L.F.P.S. (Glasgow), is also in general medical practice in Chadderton. For his official duties Mr. Ashton is paid the small salary of £65 a year. His reports to the health committee are meagre, as are his annual reports to the Board, and on occasions it has been necessary for the Board to request to be supplied with supplementary information. Not infrequently important matters are omitted from the annual reports or are not given in sufficient detail; possibly this may be due to the inadequate staff which Mr. Ashton has at his command.*

Mr. Samuel Shaw Haigh has been inspector of nuisances since February, 1912; he is a whole-time officer, and is in receipt of a salary of £90 a year, a portion of which is repaid from county funds. Mr. Haigh's previous training was obtained during the seven years he acted as assistant to his predecessor. He has not yet obtained a certificate of competency from the Royal Sanitary Institute or other similar body, though it may be noted that at the time of his appointment the district council informed the Board that Mr. Haigh expected to obtain the certificate of the Royal Sanitary Institute in three or four months.

Mr. Haigh is a hard and willing worker, but the population of Chadderton is nearly 29,000, and it is difficult, if not impossible, for him to carry out single-handed and with reasonable efficiency all the duties of the office as laid down in the Board's regulations of December 13, 1910. He is compelled to spend much time in his office which would be better spent in outside inspectorial work. This, perhaps, was in some measure the reason why Mr. Haigh did not appear to me to be so well known as a nuisance inspector usually is. The surveyor to the urban district is Mr. Alfred Cox; he is a whole-time officer, and is paid a salary of £200 a year. Mr. Cox appears to have a good knowledge of the district and its requirements.

Isolation Hospital.—Chadderton has no isolation hospital of its own but is included with Royton and Crompton in a Joint Hospital Committee. This committee has so far made hospital provision for smallpox only, and cases of other infectious diseases occurring in Chadderton are accommodated at the Oldham isolation hospital "whenever beds are available" at an inclusive charge of two guineas a week. Nominally this hospital contains 98 beds and serves the needs of a population of 227,277 persons in Oldham, Chadderton, Crompton, Failsworth, Lees, and Royton; it would thus appear that not many beds would be available at any one time. Mr. Ashton assured me, however, that so far he

* Since this was written Mr. Ashton has resigned his appointment. The council now propose to appoint a medical officer of health at a higher salary, who will also act as school medical officer, and be independent of general practice.

has always been able to procure such accommodation as he has asked for. An analysis of the figures for the four years ending December, 1911, shows that the cases thus removed amount to 19 per cent. of the total. The remaining 81 per cent. were nursed at home, and in 10 per cent. of these cases the infection was not limited to one member of the household. The figures for the years 1901-1910 show an average annual incidence of 107 cases of scarlet fever, 25 of diphtheria, 12 of erysipelas, 8 of enteric and 1 of puerperal fever.

The hospital for smallpox provided by the Chadderton, Royton and Crompton Joint Hospital Committee is on a site of 10 acres at Cinder Hill in the extreme north of the district. The lease on which the land is held expires in April, 1914, and as the hospital is somewhat antiquated the committee, acting on the advice of the county medical officer of health, have decided not to seek its renewal, but to build a new hospital for smallpox. The question of providing a second hospital for infectious diseases other than smallpox is also under consideration. The committee have available for this purpose a site of 27 acres which they own and which adjoins the Cinder Hill site.

The *investigation of infectious diseases* other than smallpox is carried out by the inspector of nuisances, who visits all notified cases and enquires into the circumstances of the illness and the sanitary condition of the house and surroundings. He leaves printed directions as to the isolation of the patient, the disinfection of discharges, the keeping of children from school, and so on. The information thus received is entered up in an infectious disease register, which records most of the points of importance, except the date of onset of the illness. Home-treated cases are kept under observation until such time as the medical attendant certifies the patient free from infection, when the inspector visits and disinfects the infected rooms, bedding, etc., *in situ*, by means of sulphur dioxide. No further or more thorough disinfection is carried out, except in the case of smallpox, when the steam disinfectant at the Cinder Hill hospital is requisitioned; of the efficiency of the routine method adopted I have some doubt. Under ordinary circumstances the medical officer of health does not visit notified cases of the common infectious diseases unless the patient is recommended for removal to hospital. The cost of the examination of morbid products for diagnostic purposes in cases of suspected infectious diseases is defrayed by the council, and they also supply diphtheria antitoxin gratuitously. Since the issue of the Board's tuberculosis regulations about one-half the notified cases have been visited by the medical officer of health, who gives verbal directions as to isolation and the methods of prevention of infection.

Recommendations.

Certain recommendations making for increased sanitary efficiency have been made in the body of this report; briefly summarised, the principal matters are as follows:—

1. The district council should make bye-laws under Section 23 of the Public Health Acts Amendment Act of 1890 with

respect to "the paving of yards and open spaces in connection with dwelling-houses."

2. Yards and back passages at present unpaved should receive systematic attention with a view to securing proper paving and draining as soon as possible.

3. The substitution of waste water closets for those on the conservancy system should be discontinued, and in future all conversions should be to cistern-flushed fresh water closets.

4. Continued efforts should be made to replace open ashpits by covered movable ashbins of the capacity specified in the bye-laws.

5. Inspection of the district with reference to housing conditions should be increased and systematised.

6. Administrative measures for the reduction of infantile mortality should receive consideration.

7. Greater attention than hitherto should be bestowed on supervision of the food sold and prepared in the district. The powers which the district council possess to secure the cleanliness and wholesomeness of bakehouses, slaughter-houses and cowsheds, should be duly exercised, and inspection of meat and food under the Public Health Acts should be systematically carried out.

8. The insufficiency of the staff and organisation of the sanitary department should be considered and rectified.

Attention to the last of these recommendations, it is obvious, must determine progress with those which precede it, and, indeed, progress generally in improving the sanitary condition of the district. The council has to its credit a large amount of good sanitary work in the past, but there still remains in its district a large number of conditions prejudicial to health which can be removed if the local authority is willing to take the necessary action, and can secure that the conditions in question are systematically sought out and are brought to their notice with well-considered advice as to the remedy to be applied. There is no reason to regard the dirty conditions met with in the neighbourhood of many houses as inevitable, or to be content that a minimum of inspection should be made as to the condition of house property under the Housing (Inspection of District) Regulations, or as to the wholesomeness of the food supply and its places of preparation. In such matters, as also in the investigation made into the prevalence of infectious disease, the present arrangements appear to me to permit only of the perfunctory performance of duties, the efficient execution of which would do much to improve the sanitary circumstances and public health of the district.

I received every courtesy at the hands of the council's officials, and to them I should like to express my appreciation of their kindness. To Dr. Wilkinson, the Medical Officer of Health of Oldham, my thanks are also due.

J. R. HUTCHINSON.
